

Date: Tuesday, 29/04/2008 11:23:07 AM
 User: Melanie Fauteux

Process Sheet

OK

Customer :	CC-DAR01 Dart Aerospace Ltd.	Drawing Name :	REAR RAIL
Job Number :	38874		
Estimate Number :	10804		
P.O. Number :		Part Number :	D37663
This Issue :	29/04/2008	S.O. No. :	
Prsht Rev. :	NC	Drawing Number :	PROTOTYPE
First Issue :	29/04/2008	Project Number :	
Previous Run :	38870	Drawing Revision :	A 08.04.30
		Material :	
Written By :	<u>W</u>	Due Date :	16/05/2008
Checked & Approved By :	<u>W</u>	Qty:	2 Um: Each
Comment :			

Additional Product

PROTOTYPE

Job Number:



Seq. #:

Machine Or Operation:

Description:

1.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

MAKE PER DRWG D3766 REV A

FF

08-05-13

2.0

M304TR1000W155

304 RD Tube 1.0" x .155W

304 RD TUBE 1" x .155W
P08.04.30

Comment: Qty.: 2.9300 f(s)/Unit Total: 5.8600 f(s)

*

M1079.52

08-05-13

3.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

ENGINEERING
APPROVAL

S 08/05/13 (x2) / P 06.05.14

4.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

GIVE TO CHRIS P-ENG

FOR ENGINEERING USE ONLY

P 08.05.29

CHARGE TO JOB #00196

5.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

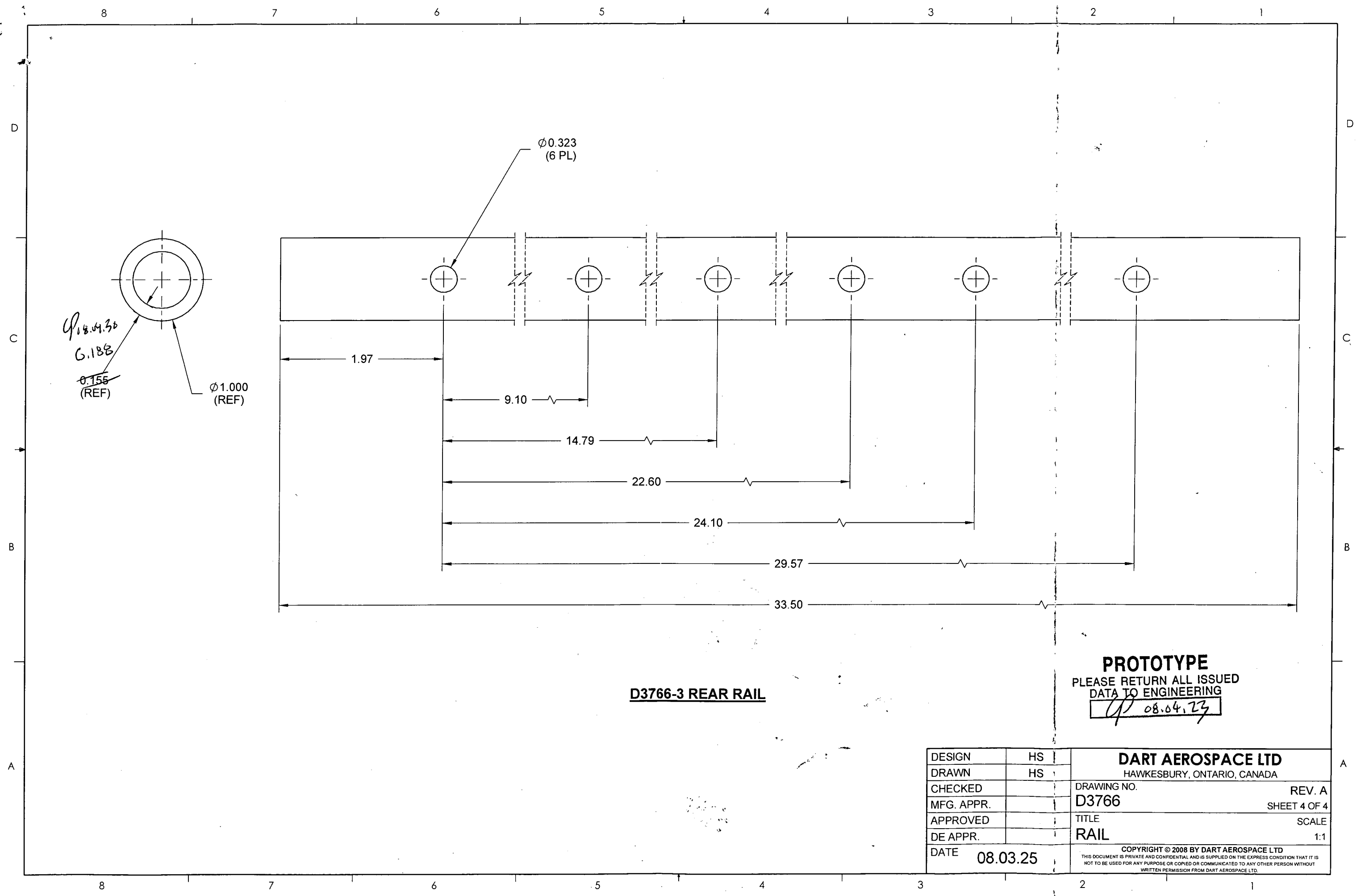
CERTIFICATE OF CONFORMITY
REQUIRED

P 08.05.29 Prototype

Job Completion



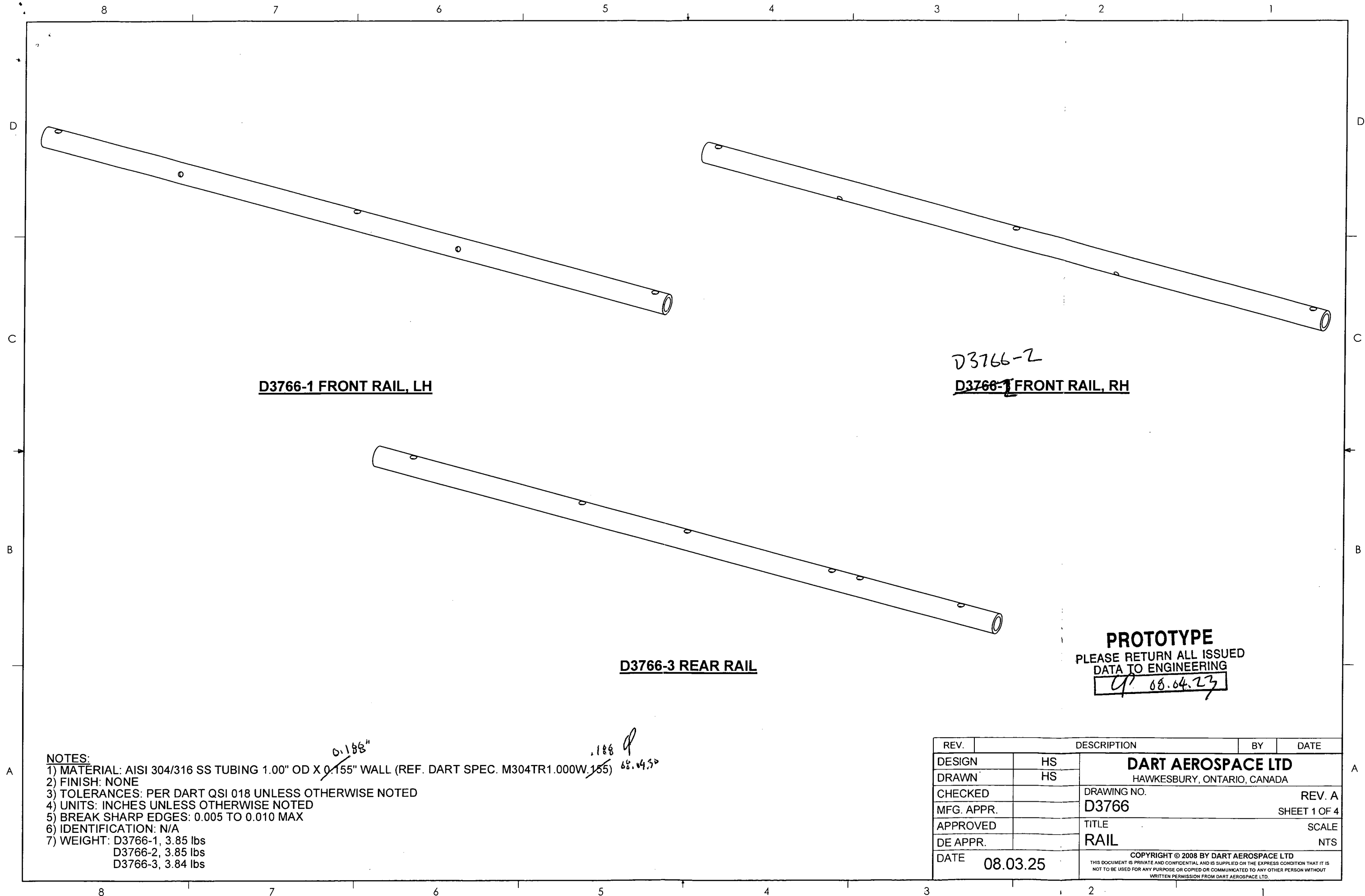
W 08/05/11



D3766-3 REAR RAIL

PROTOTYPE
PLEASE RETURN ALL ISSUED
DATA TO ENGINEERING
08.04.23

DESIGN	HS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	HS		
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3766	SHEET 4 OF 4
APPROVED		TITLE	SCALE
DE APPR.		RAIL	1:1
DATE	08.03.25	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

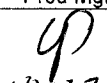



NOTES:

- 1) MATERIAL: AISI 304/316 SS TUBING 1.00" OD X 0.155" WALL (REF. DART SPEC. M304TR1.000W.155)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: D3766-1, 3.85 lbs
D3766-2, 3.85 lbs
D3766-3, 3.84 lbs

PROTOTYPE
PLEASE RETURN ALL ISSUED
DATA TO ENGINEERING
UP 08.04.23

REV.	DESCRIPTION		BY	DATE
DESIGN	HS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	HS			
CHECKED		DRAWING NO.	REV. A	
MFG. APPR.		D3766	SHEET 1 OF 4	
APPROVED		TITLE	SCALE	
DE APPR.		RAIL	NTS	
DATE	08.03.25	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
08.04.30	Z	USE AISI 304/316 SS TUBING , 1.00" OD x 0.188" WALL DART SPEC. M304TR1.00x0.188 INSTEAD OF 0.155"	See step. 2		✓	 08.04.30 PC DSI 042	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

Receiving Report

Date: 8/07
Supplier: MAGNA

Batch No: M/107952
Dart P/O: 6270

Packing Slip: Yes ☒ No ☐
Invoice: Yes ☐ No ☒
Receipt: Cash ☐ Cr ☐

Release Note Attached: Yes ☒ No ☐ N/A ☐
Waybill Attached: Yes ☐ No ☒
Shipment Complete: Yes ☒ No ☐ N/A ☐
QC6 Inspection 8/07 N/A ☐
Work Order N/A ☒

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments

Initials of receiver (if shipment OK) Level 12

Production/Admin:
Date: 08/05/08
Received/Costing: RCP 7826
Initial: cy

Location

H:\FORMS\Purchasing\approved purch\RECREPORT Rev D

Heat # 168/12-3

RECEIVED MAY 13 2008

Sub-Total
G.S.T.

1090.00
54.50

TOTAL →

1144.50

FRAIS D'ADMINISTRATION DE 1½% PAR MOIS (18% PAR ANNÉE) SUR COMPTE PASSÉ DÙ.
LE PRÉSENT CONTRAT SERA RÉGI PAR LES LOIS DE LA PROVINCE DE QUÉBEC ET COMME
AYANT PRIS NAISSANCE DANS LE DISTRICT JUDICIAIRE DE MONTRÉAL.
ADMINISTRATION CHARGES OF 1½% PER MONTH (18% PER YEAR) ON OVERDUE ACCOUNTS.
THE PRESENT AGREEMENT SHOULD BE GOVERNED BY THE QUEBEC LEGISLATION AND SHOULD
BE CONSIDERED AS HAVING ORIGINATED IN THE JUDICIAL DISTRICT OF MONTREAL.

CG 826



Shanghai Huaerde Stainless Steel Pipe Manufacture Co., Ltd.

A PED& AD-W2 Certified Company

Chihua Road, Shanghai Chemical Industry Park(Section B)
Fengxian District, Shanghai.201417 China

Mill Test Report

HED39569-04

According to EN10204 - 3.1



Certificate No. 01 2010 CHN 0106 (2017)

Customer Name		Material Specification	ASTM A/SA-213 A269 NACE MR0175 TP316/316L OD 220 GRIT POLISHING
Purchase Order No.	39569	Heat Treatment	Solution Annealed in the temperature of 1040°C for 20 minutes and Quenched by water
Description	Cold Finished Seamless Austenitic Stainless Steel Tubes	Heat No.	8-109

ELEMENTS	C %	Mn %	P %	S %	Si %	Cr %	Ni %	Mo %	Lot No.	Yield Strength	Tensile Strength	Elongation	Hardness HRB
SPECIFICATION	Max 0.035	Max 2.00	Max 0.045	Max 0.030	Max 1.00	16.0 ~18.0	10.0 ~14.0	2.0 ~3.0	8-109	Min.205MPa	Min.515 MPa	Min.35%	Max.90
RESULTS(LADLE)	0.018	1.34	0.005	0.024	0.40	16.40	10.14	2.13	07-10-15-88-1	245	539	46%	77
RESULTS(PRODUCT)	0.020	1.25	0.005	0.013	0.51	16.47	10.13	2.17	07-10-15-88-2	247	543	48%	81

C) Extend of material delivery

Item No.	Quantity	Descriptions	Heat No.	Lot No.
1	1120 ft	1" x .049" x 20'	8-109	07-10-15-88
2	1880 ft	1" x .065" x 20'	8-109	07-10-15-88
3	520 ft	1" x .188" x 20'	8-109	07-10-15-88
4	500 ft	35mm x 2.5mm x 20'	8-109	07-10-15-88

D) Hydrostatic Test, NDT and Dimensional check, etc.

Testing Item	Details	Results
Dimensional / Visual	ASTM A999	Satisfactory
Hydrostatic Pressure test	ASTM A999	Satisfactory
Flattening Test	ASTM A1016	Satisfactory
Flaring Test	ASTM A1016	Satisfactory
Inter-granular Corrosion test	ASTM A262 E	Satisfactory

E) Steel Making Process

Electrical Furnace

F) Statement

1. No weld repair performed for billet and pipe
2. The Materials have been manufactured, tested and examined in acc. with all the requirements of the ordered standards and we confirm that all test results are acceptable

Date	November 24, 2007	Mill inspector	Li Bin	Approved by QC manager	
------	-------------------	----------------	--------	------------------------	--

